

## ABSTRACT OF THE DISCLOSURE

The invention combines the step of adding chemicals such as  
5 alkaline peroxide to an intermediate line after refining, with the step of  
applying chemicals such as alkaline peroxide as a pre-treatment before  
primary refining and/or applying chemicals such as alkaline peroxide at  
the primary refiner. This is implemented in the preferred embodiment, by  
pre-treating feed material, refining the materials into a pulp in a  
10 superatmospheric refiner, and adding chemicals in the post refining blow-  
line.

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